

DIGITAL SELF-ADAPTING
GRAPHIC EQUALIZER AND METHOD

ABSTRACT OF THE DISCLOSURE

5 A self-adaptive graphic equalizer operable to
equalize the affects of an audio system on an audio
signal includes an adaptive graphic equalizer having a
plurality of equalizing filters, where the plurality of
equalizing filters have different center frequencies
10 equidistant from one another and spanning a predetermined
audio bandwidth. Each equalizing filter is operable to
filter an i^{th} sub-band of the audio signal. A plurality
of first filters are coupled to the audio system, each
first filter is operable to filter an i^{th} sub-band of an
15 output signal of the audio system. A plurality of second
filters are operable to filter an i^{th} sub-band of the
audio signal. A gain adjuster is operable to adjust the
 i^{th} sub-band of the adaptive graphic equalizer in response
to a difference in the i^{th} sub-band of the filtered output
20 signal from the plurality of first filters and the i^{th}
sub-band of the filtered audio signal from the plurality
of second filters.